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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jari Ruuttu

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EXAMINER

HAUTH, GALEN H

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,098	Applicant(s) RUUTTU, JARI	
	Examiner GALEN HAUTH	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/03/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Regarding claims 1, 2, and 11, the phrase "for example" or "e.g." renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Claims 3-10 and 12-14 depend from the above claims and are thus rendered indefinite as well.

- b. Regarding claim 1, the phrase "steps known as such" renders the claim indefinite because it is unclear exactly what steps are known or if this is an acknowledgment that all steps of processing the film are known in the art.

- c. Regarding claim 2, the phrase "in general" renders the claim indefinite as it is unclear what exactly falls within the limitation of "in general".

- d. Regarding claim 3, the list of steps of which the process comprises does not end with a conjunction of "and" or "or" but rather has the conjunction "or" in the middle of the list. It is unclear whether or not this list is a collection of steps that must all be in the process or a collection of optional steps in the process due

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to the “or some other formatting method of the IM film” limitation as all the processes listed are considered to be “formatting” of the film.

e. Claim 11 recites the limitation “the inner surface” in the fourth line of the claim. There is insufficient antecedent basis for this limitation in the claim.

f. With regards to claim 13, the phrase “would always align” renders the claim indefinite as the use of the word “would” implies future tense and it is not clear if this is a positive limitation on the invention such that the invention requires the alignment.

Claim Objections

3. Claims 1, 3, 7-10, and 12-14 are objected to because of the following informalities: the use of the term IM is objected to because there abbreviation is not spelled out at least once in the claims to ensure proper bounds for the limitation regardless of the use of the term in the specification. Appropriate correction is required.

4. Claim 10 is objected to for lack of antecedent basis for the term “the vacuum processes” as it depends on claim 1 which does not set a basis for the vacuum processes.

5. Claims 1, 3, 9, 12, and 14 are objected to for use of a “/” between limitations. It is unclear whether this slash represents the conjunction “or” or if the slash is intended to provide interchangeability between the limitations.

6. Claim 9 is objected to because of the use of a comma after the word “directed” and before “aligned” as the sentence of the claim is vague in determining if the phrase after the comma still applies to the IM film or the deep drawing or overpressure process.

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7. Claim 5 is objected to for being an incomplete sentence. The comma after the word "image" and before "surface" is unclear whether it means to represent the word "or".

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coscia et al. (PN 4460429) in view of Applicant's Admitted Prior Art AAPA (PG Pub 2007/0035059 used for citation).

- a. With regards to claim 1, Coscia teaches a method for forming injection molded plastic articles (col 3 ln 55-60) in which an in-mold (IM) film is used with a printed design (abstract) and transferred to a platform (col 7 ln 18-19, collected). Coscia fails to teach that the injection molded article is injection molded directly onto the in mold film as opposed to the use of an adhesive.

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- b. Applicant's admitted prior art teaches that the injection molding directly onto a printed film was known in the art at the time the invention was made (§ 0069) and therefore would have been obvious to one of ordinary skill in the art to reduce process steps of separately forming the base article of Coscia.
 - c. With regards to claim 2, Coscia teaches forming articles for furnishing parts for cars (abstract) and that all steps are synchronized given the continuous film process as seen in figure 4.
 - d. With regards to claim 7, Coscia teaches using rolls of blank film (col 4 In 30-35, blank film is clean film as it has not been printed or worked upon).
 - e. With regards to claim 8, Coscia teaches that the film is a conveyor (col 3 In 10-15)
2. Claims 3-6 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coscia et al. (PN 4460429) in view of Applicant's Admitted Prior Art AAPA (PG Pub 2007/0035059 used for citation) as applied to claims 1 and 2 above, and further in view of Parker et al. (PN 4643789), Hanson et al. (PN 6888147), and Bauer et al. (PN 6294124).
- f. With regards to claims 3 and 14, Coscia in view of AAPA as applied to claims 1 and 2 above teaches a method for processing an in mold film that has an article injection molded onto it with the steps of printing and embossing the film (abstract). Coscia does not teach the use of piezo/laser printing, laser engraving, hardening of UV color/pain, vacuum methods, metallization, deep drawing, laser cutting, or lacquering with piezo sprays.

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g. Parker teaches a method for processing a continuous resin transfer film for insert molding (abstract) in which the article undergoes vacuum metallization (col 6 ln 27) as well as using vacuum to format the film to a desired shape (col 10 ln 53-62) before being combined with the other plastic part. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include vacuum metallization and vacuum drawing as steps in the continuous process of the transfer film insert object as such were well known process steps at the time the invention was made. Parker teaches die cutting the product (col 10 ln 21-36) but does not teach the use of a laser.

h. Bauer teaches a method for using a laser to score grooves into a plastic part and use of the laser to cut the plastic part (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a laser for embossing or cutting the film of Coscia with a laser as taught by Bauer, because the use of a laser increases precision of the cutting depth and width (col 3 ln 25-31).

i. Hanson teaches a process for manufacturing a decorative surface element (abstract). Hanson teaches the use of a UV radiation cured coating to improve scratch and wear resistance (col 5 ln 3-35) to a pattern printed to a plastic core (col 4 ln 44-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a UV cured coating of paint/lacquer in the process of Coscia to improve the scratch and wear resistance of the printed design article produced.

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j. With regards to claims 4-6, Hansson teaches the use of digital control of the image, image forming process steps, and other process steps (col 2 ln 47-51, col 4 ln 29-34) as well as use of the internet to control design choices (col 10 ln 21-25). Bauer teaches the use of computers to control a laser for cutting and scoring the product (abstract, col 6 ln 19-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use digital control and the internet in the process of Coscia to increase efficiency, accuracy, and accessibility in the process steps as such was well known in the art at the time the invention was made as seen in Hansson and Bauer.

k. With regards to claim 9, Parker teaches vacuum forming the material while on the conveyor before die cutting (col 9 ln 37-40, col 10 ln 56-63).

l. With regards to claim 10, Parker teaches molding after the IM film is vacuum formed (col 11 ln 10-21).

m. With regards to claim 11, Parker teaches metallization of the component (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the steps of Coscia in view of Bauer, Hansson and Parker interchangeably including metallization of the product after molding a component thereto.

n. With regards to claim 12, Coscia in view of Parker, Bauer, and Hansson as applied to claim 3 above, teaches the use of a laser for cutting.

o. With regards to claim 13, Parker teaches the use of a multiaxial control of the workpiece when in use with the laser (col 6 ln 19-25).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Smith et al. (PN 4773959) teaches a method for continuous formation of printed design laminate die cut products that are embossed (abstract) on a support film of continuously formed web (Fig. 1 and 2).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GALEN HAUTH whose telephone number is (571)270-5516. The examiner can normally be reached on Monday to Thursday 8:30am-5:00pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571)272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GHH/

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791